

Math 129 section 01 Summer 2013 quiz July 12 Name: _____

Name: _____

Open Homework portion

1. Write your solution from section 7.3 # 36:
2. Rework problem 7.3 #39 with a lower bound of $x = -1$:
3. For problem 7.3 # 20 what are the asymptotes of the solution?

Reading Quiz:

4. Complete the square and give a substitution that could be used to solve the integral

$$\int \frac{x^2 + 1}{x^2 + 2x + 2}$$

5. Write an improper integral which converges and has a finite domain.
6. For the following integrals find appropriate comparison integrals to verify they converge/diverge. Explain why they verify the result.
- (a) $\int_3^{\infty} \frac{3}{\ln(x)-1} dx$ diverges
- (b) $\int_0^{10000000} \frac{1}{\sqrt[3]{x}} dx$ converges
- (c) $\int_0^{\infty} \frac{1}{1+e^y} dy$ converges.